

FIG. 1A

GTGCTGGGC	GGAGCAAAAT	ATGTTCCAAT	TGTGTTTCT	TTGATAGAT	TCTTCAACA	60
GACAGTCTT	TCTTAGCATC	TTCAATTTTC	TTATTTGT	TGACTTGCAT	ATTTCAATT	120
ACAGGCTGCA	ATGGTGACAC	TTCCATGGTG	ACGGTCGTGA	AGGG		164

FIG. 1B

TGAAAAGATG	TATGTCCCAG	CTCTCATATT	TGGACAGCTC	CTAACTTCTA	GTAACATATGA	60
TGATGATGAA	AAGAAAGTGA	CAGGTGGTCG	AAATGGCTAT	GGAGCCAAAT	TGTGTAACAT	120
ATTCAGTACC	AAATTTACTG	TGGAACACAGC	CAGTAGAGAA	TACAAGAAAA	TGTTCAAACA	180
GACATGGATG	GATAATATGG	GAAGAGCTGG	TGA			213

FIG. 1C

GCCCATTTGGT	CAGTTTGGTA	CCAGGCTACA	TGGTGGCAAG	GATTCTGCTA	GTCCACGATA	60
CATCTTTACA	ATGCTCAGCT	CTTTGGCTCG	ATTGTTATTT	CCACCAAAG	ATGATCACAC	120
GTTGAAGTTT	TTATATGATG	ACAACCAGCG	TGTTGAGCCT	GAATGGTACA	TTCCTATTAT	180
						181

T

FIG. 1D

TGAATGGTAC	ATTCTATTA	TTCCCATGGT	GCTGATAAAT	GGTGCTGAAG	GAATCGGTAC	60
TGGGTGGTCC	TGCAAAATCC	CCAACTTTGA	TGTGCGTGAA	ATTGTAATA	ACATCAGGCG	120
TTTGATGGAT	GGAGAAGAAC	CTTTGCCAAT	GCTTCCAAGT	TACAAGAACT	TCAAGGGTAC	180
TATTGAAGAA	CTGGCTCCAA	ATCAATATGT	GATTAGTGGT	GAAG		224

FIG. 1E

TGCGTGAAAT	TGTAATAAC	ATCAGGCGTT	TGATGGATGG	AGAAGAACCT	TTGCCAATGC	60
TTCCAAGTTA	CAAGAACTTC	AAGGGTACTA	TTGAAGAACT	GGCTCCAAAT	CAATATGTGA	120
TTAGTGGTGA	AGTAGCTATT	CTTAATTCTA	CAACCATTGA	AATCTCAGAG	CTTCCCCGTCA	180
GAACATGGAC	CCAGACATAC	AAAGAACAAG	TTCTAGAACC	CATGTTGAAT	GGCACCCGAGA	240
AGACACCTCC	TCTCATAACA	GACTATAGGG	AATACCATAC	AGATACCCACT	GTGAAATTG	300
TTGTGAAGAT	GACTGAAGAA	AAACTGGCA				329

FIG. 1F

CACTCTTTC	AGTTTCCTTT	TCGTTGTCAC	TCTCTTCATT	TTCTTCTTCA	TCTGGAACCT	60
TTTGCTGGC	TTCTTTCCAG	GCCTTCACAG	GATCCGAATC	ATATCCCCTC	TGAATCAGAA	120
CTTTAATTAA	TTCTTTCTTA	GGCTTATTTT	CAATGATTAT	TTTGCCATCT	ATTTCTCTA	180
AGATAAAGCG	AGCC					194

FIG. 1G

TCTGCCCTCTG	CTTTCATTTC	TATGGTTATT	CGTGGAAATGA	CTCTTTGACC	ACGCGGAGAA	60
GGCAAAACTT	CAGCCATTG	TGTTTTTTC	CCCTTGGCCT	TCCCCCCTTT	CCCAGGAAGT	120
CCGACTTGTT	CATCTTGTTT	TTCCCTTGGCT	TCAACAGCCT	CCAATTCTTC	AATAAATGTA	180
GCCAAGTCTT	CTTCCACAA	ATCTGA				206

FIG. 1H

GACACGACAC	TTTTCTGTGG	TTTCAGTTCT	TTGTTACTAA	GTTTGGGGA	AGTTTGGTC	60
TTAGGTGGAC	TAGCATCTGA	TGGACAAAA	TCTTCATCAT	CAGTTTTC	ATCAAAATCT	120
GAGAAATCTT	CATCTGAATC	CAATCCATT	GTGAATTTG	TTTTGTTC	TGCTCTCCGT	180
GGCTCTGTTT	CTCG					194

FIG. 11

CTGAAACCAC	AGAAAAGTGT	CGTGTGAGAC	CTTGAAGCTG	ATGATGTTAA	GGCAGTGTA	60
CCACTGTCTT	CAAGCCCTCC	TGCTACACAT	TTCCCAGATG	AAACTGAAAT	TACAAACCCA	120
GTCCCTAAA	AGAATGTGAC	AGTGAAGAAG	ACAGCAGCAA	AAAGTCAGTC	TTCCACCTCC	180
ACTACCGGTG	CCAAAAAAG	GGCTGCCCCA	AAAGGAACTA	AAAGGGATCC	AGCTTTGAAT	240
TC						242

FIG. 1J

AATTCAAAGC	TGGATCCCCTT	TTAGTTCCTT	TTGGGGCAGC	CCTTTTCTTG	GCACCGGTAG	60
TGGAGGTGGA	AGACTGACTT	TTTGCTGCTG	TCCTCTTCAC	TGTCACATTC	TTTTTAGGAA	120
CTGGGTTTGT	AATTTCAGTT	TCATCTGGGA	AATGTGTAGC	AGGAGGGCTT	GAAGACAGTG	180
GTACACTGCC	CTTAACATCA	TCAGCTTCAA	GGTCTGACAC			220

FIG. 2A

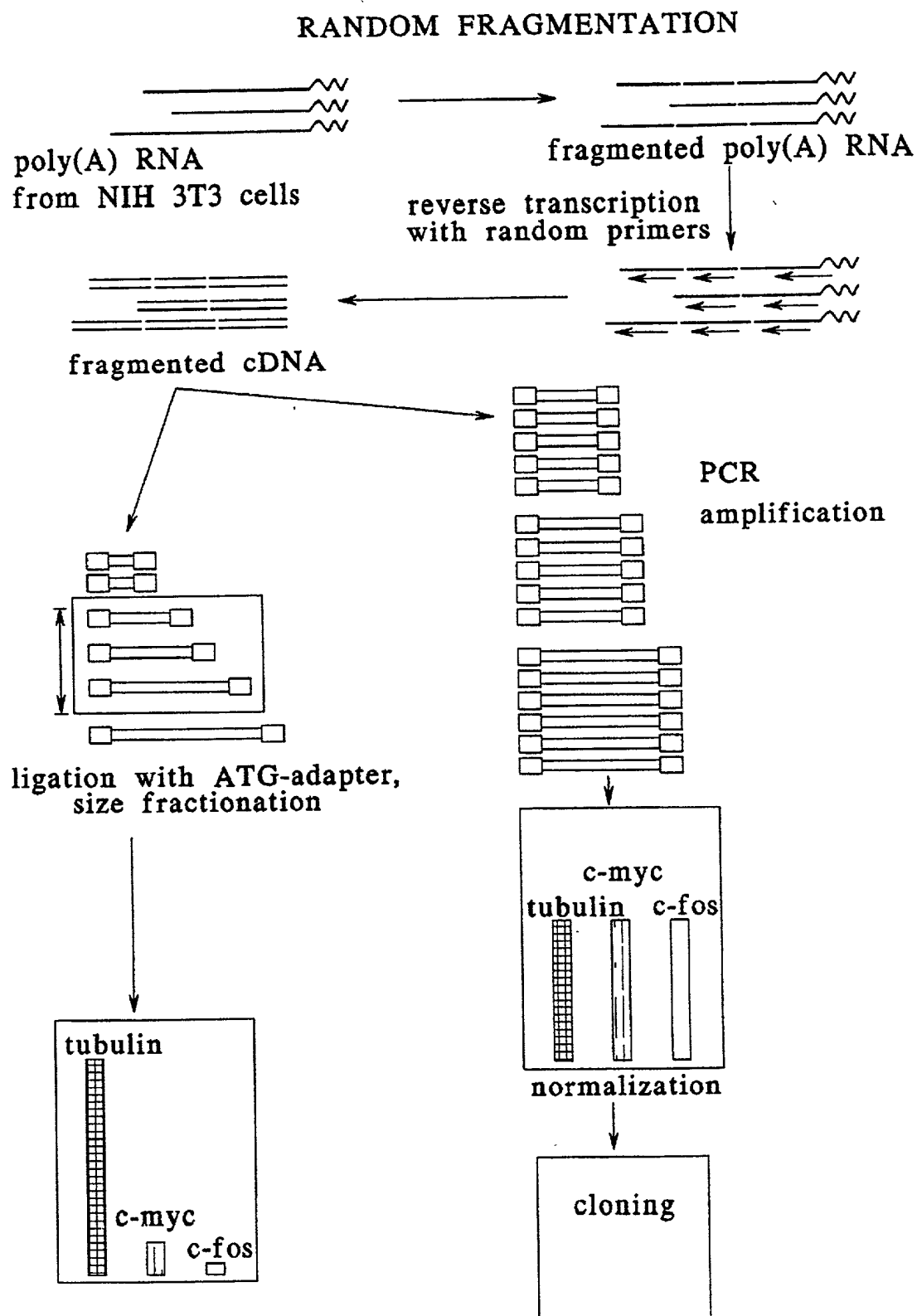


Figure 2B

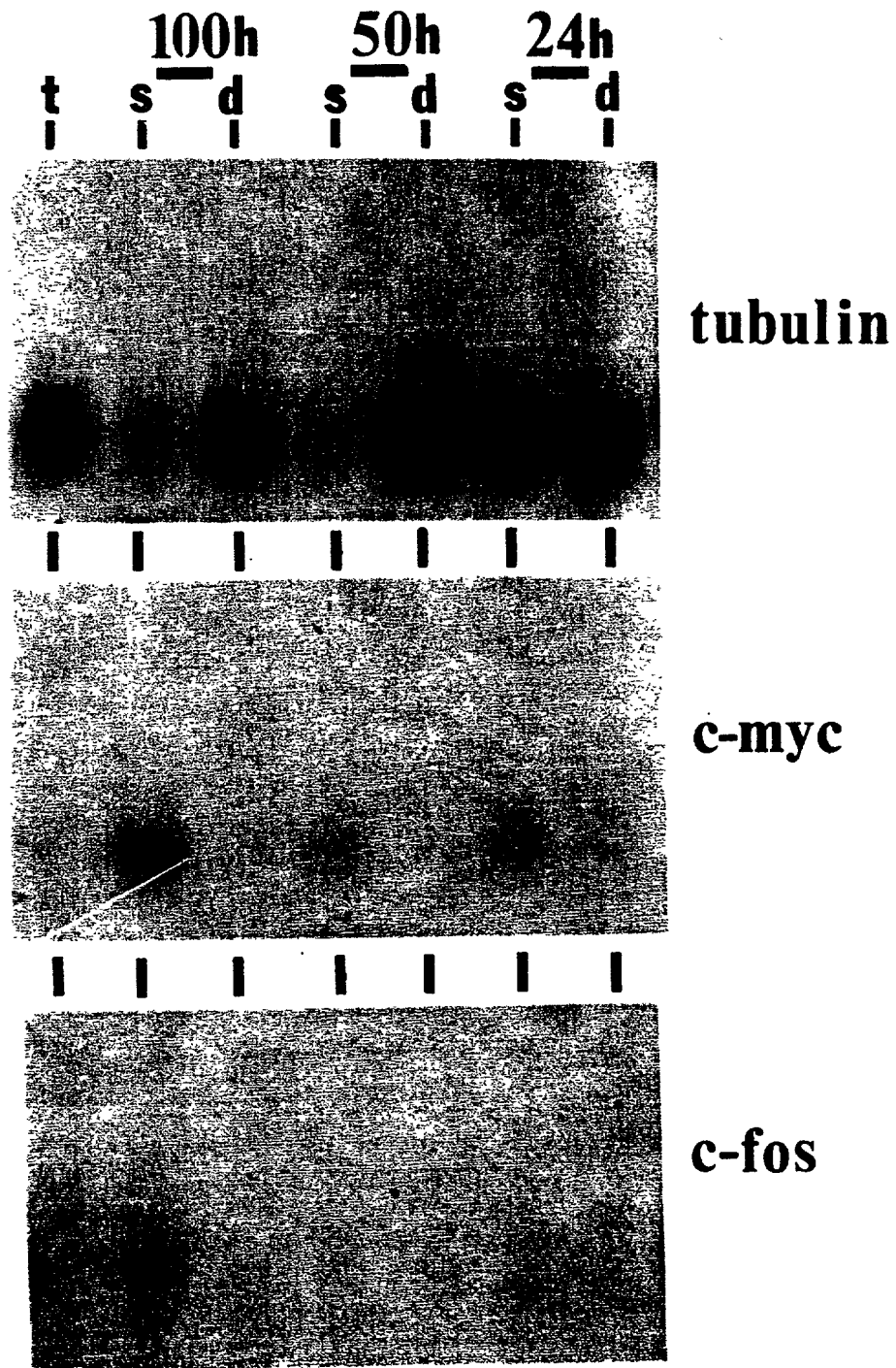


FIG. 3A

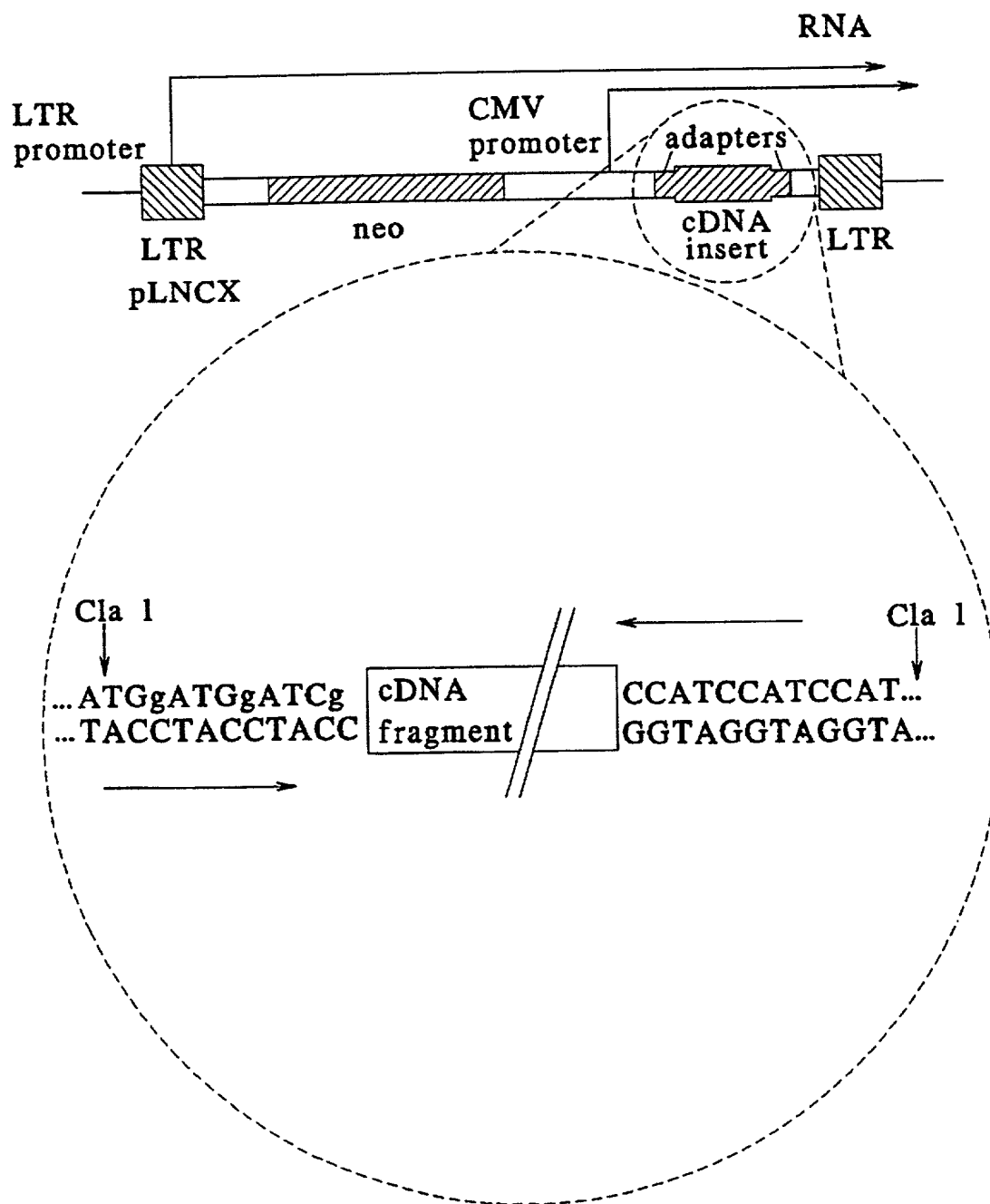


FIG. 3B

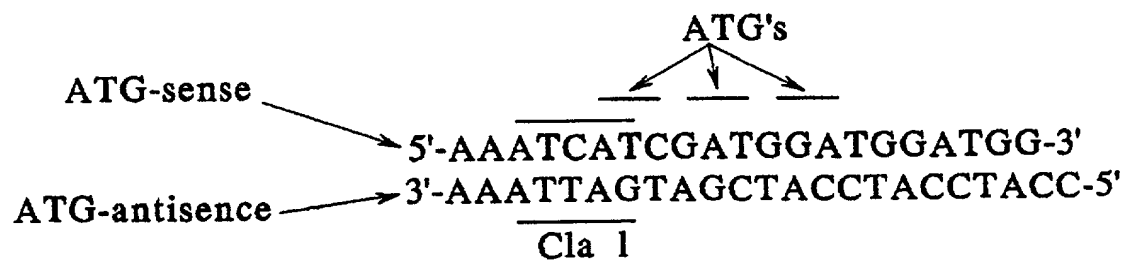


FIG. 4

Mixture of Eco and Ampho
packaging cells

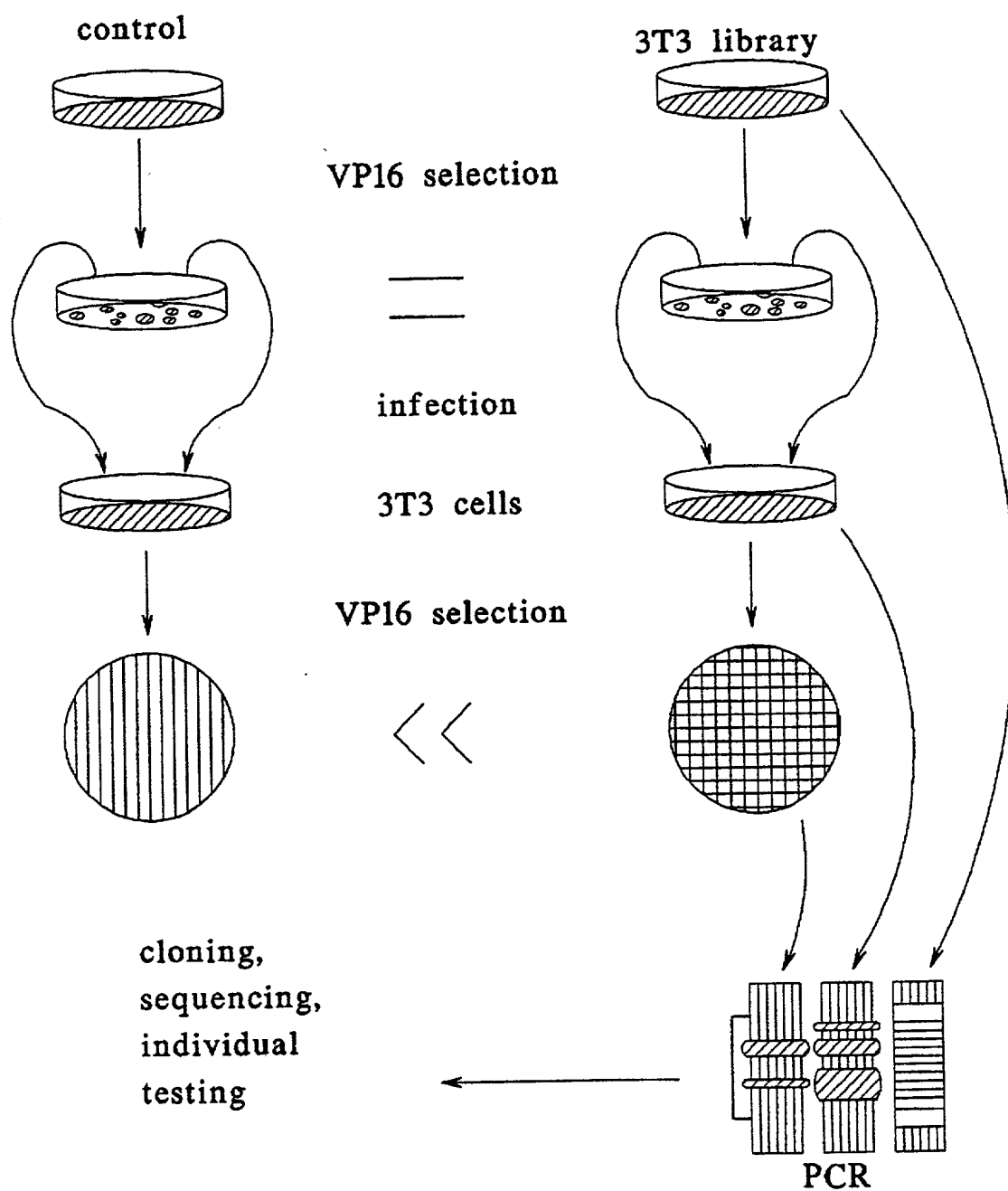
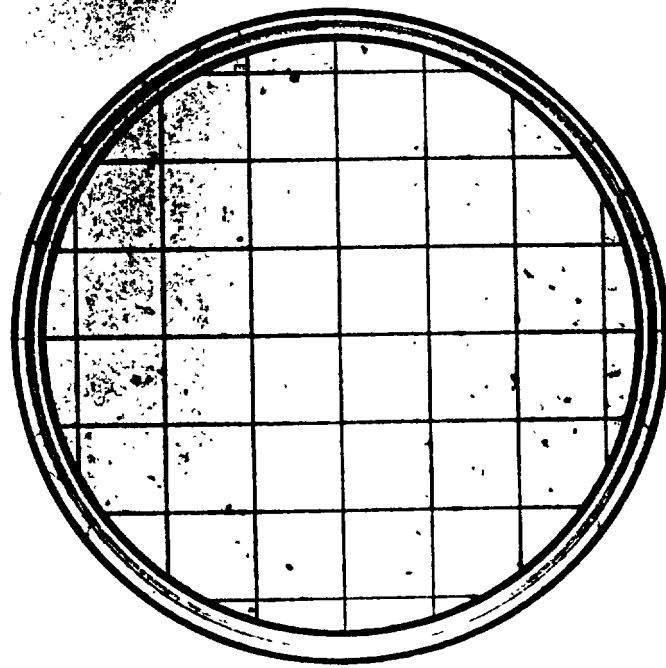
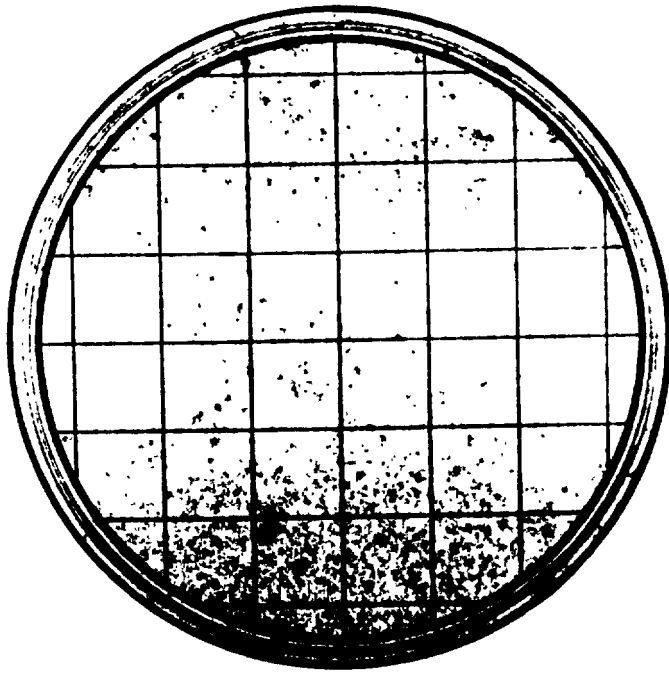


Fig 5A



control



infection

VP1 6 selection

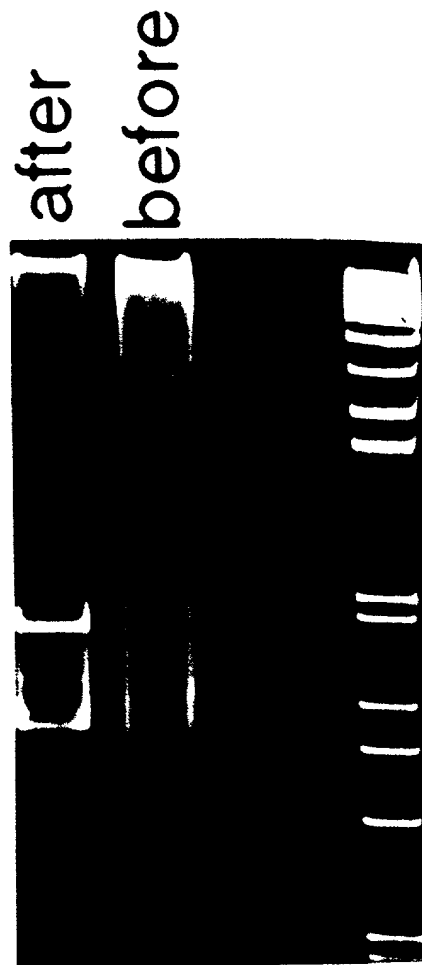


Fig. 5B

FIG. 6

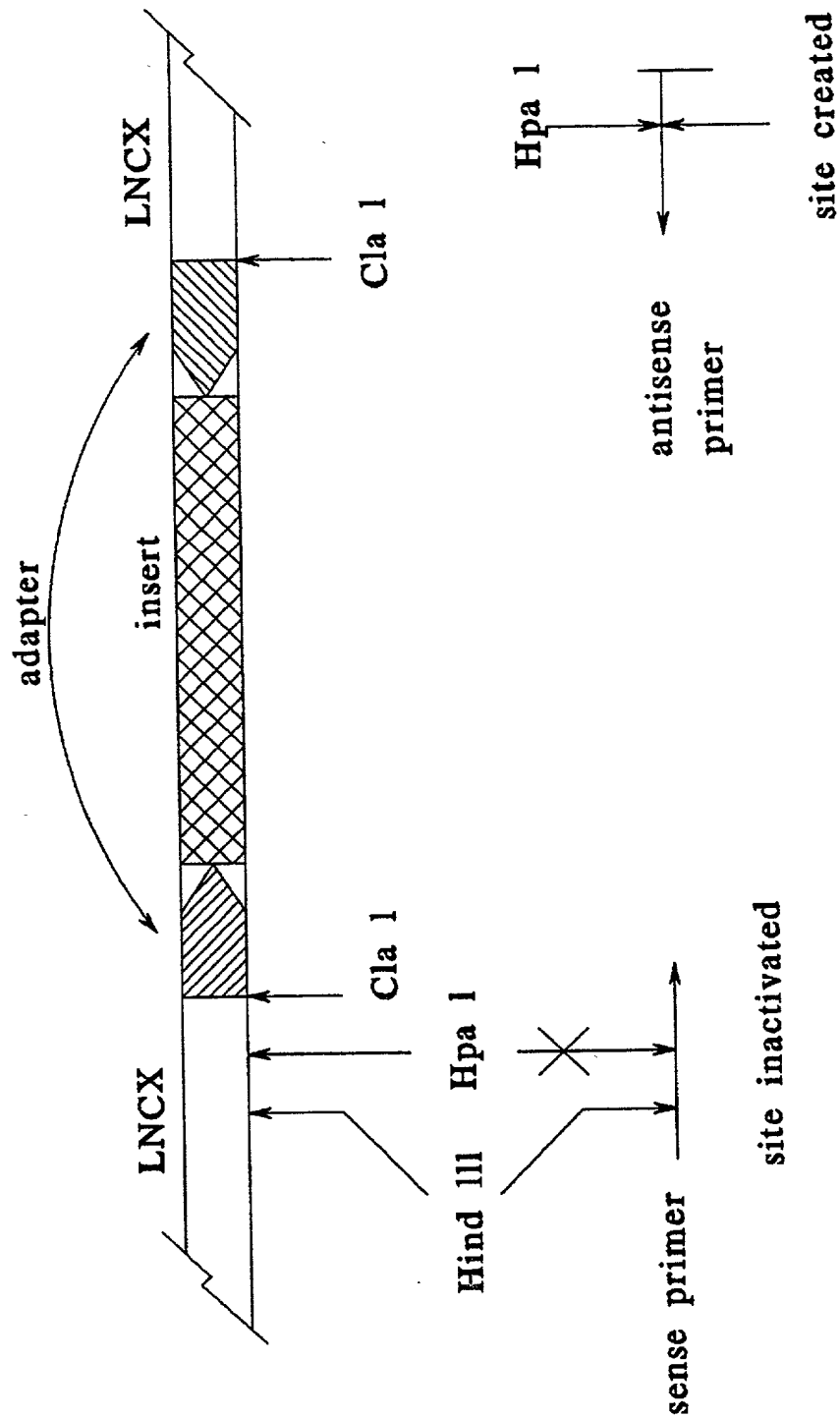
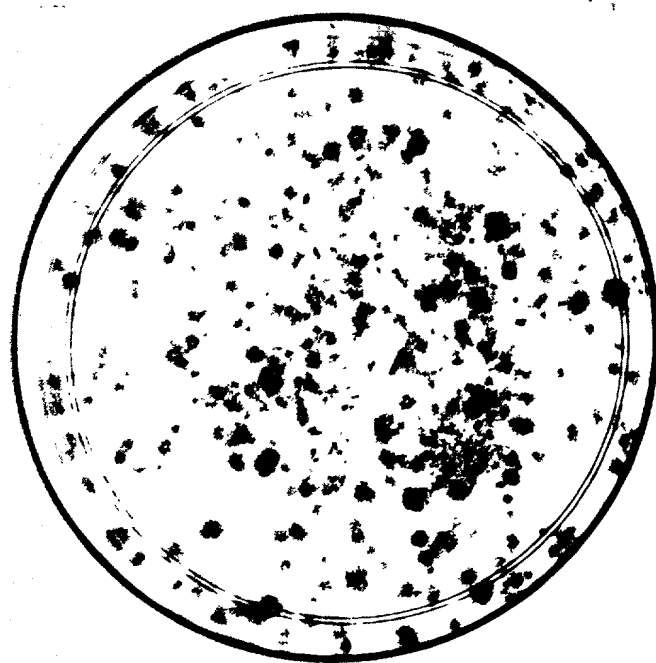
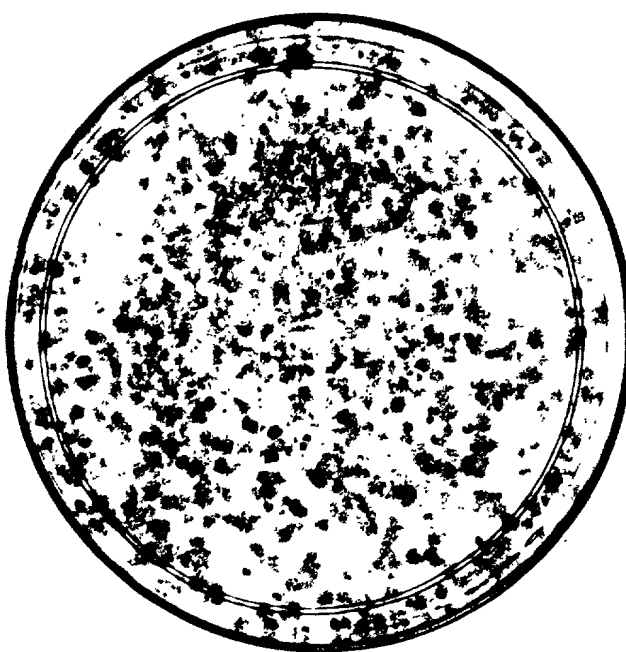


Figure 7A

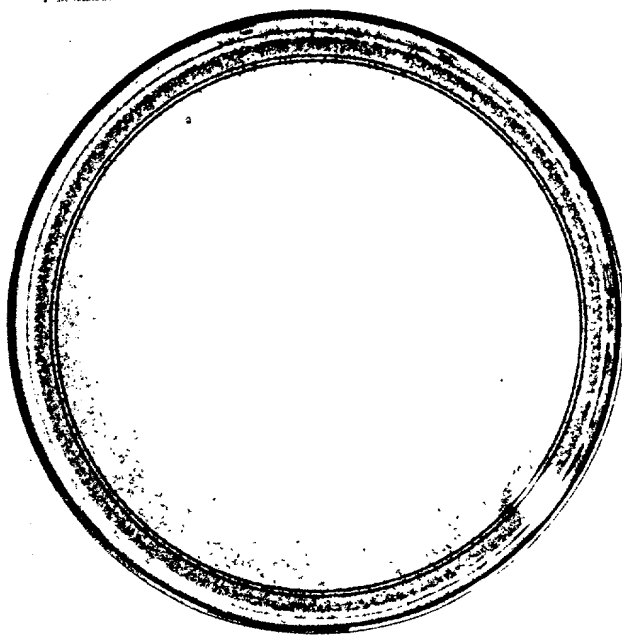


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vector**

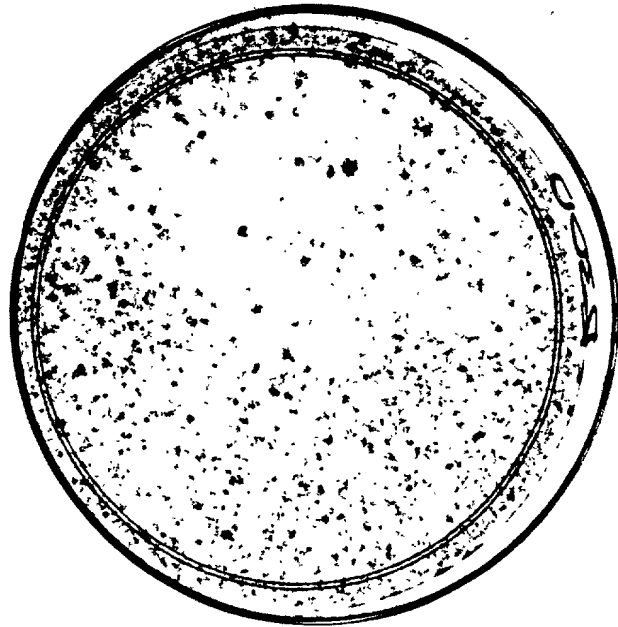


VPA

Figure 7B



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VP9-11

Fig 8A

A.

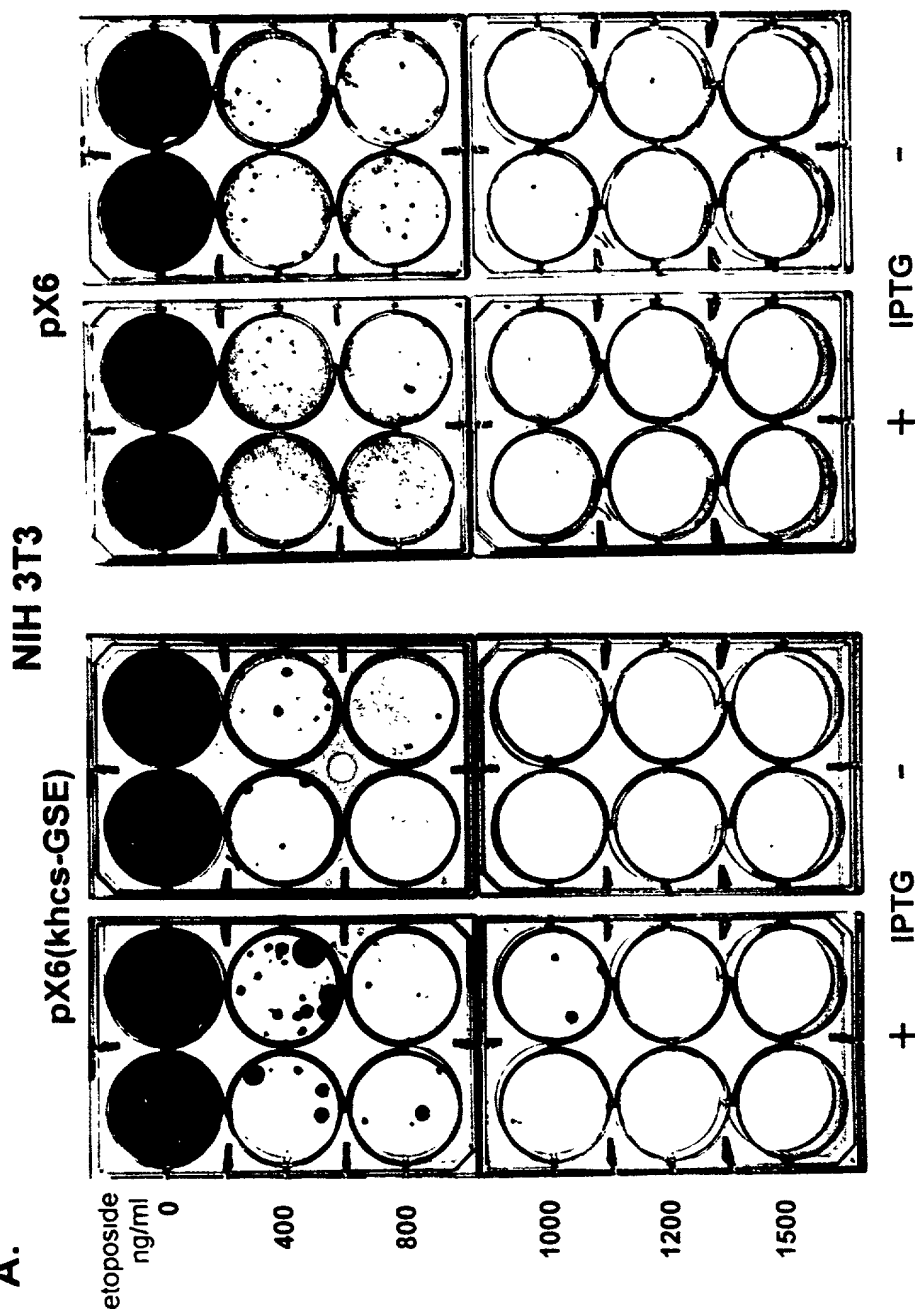


FIG. 8B

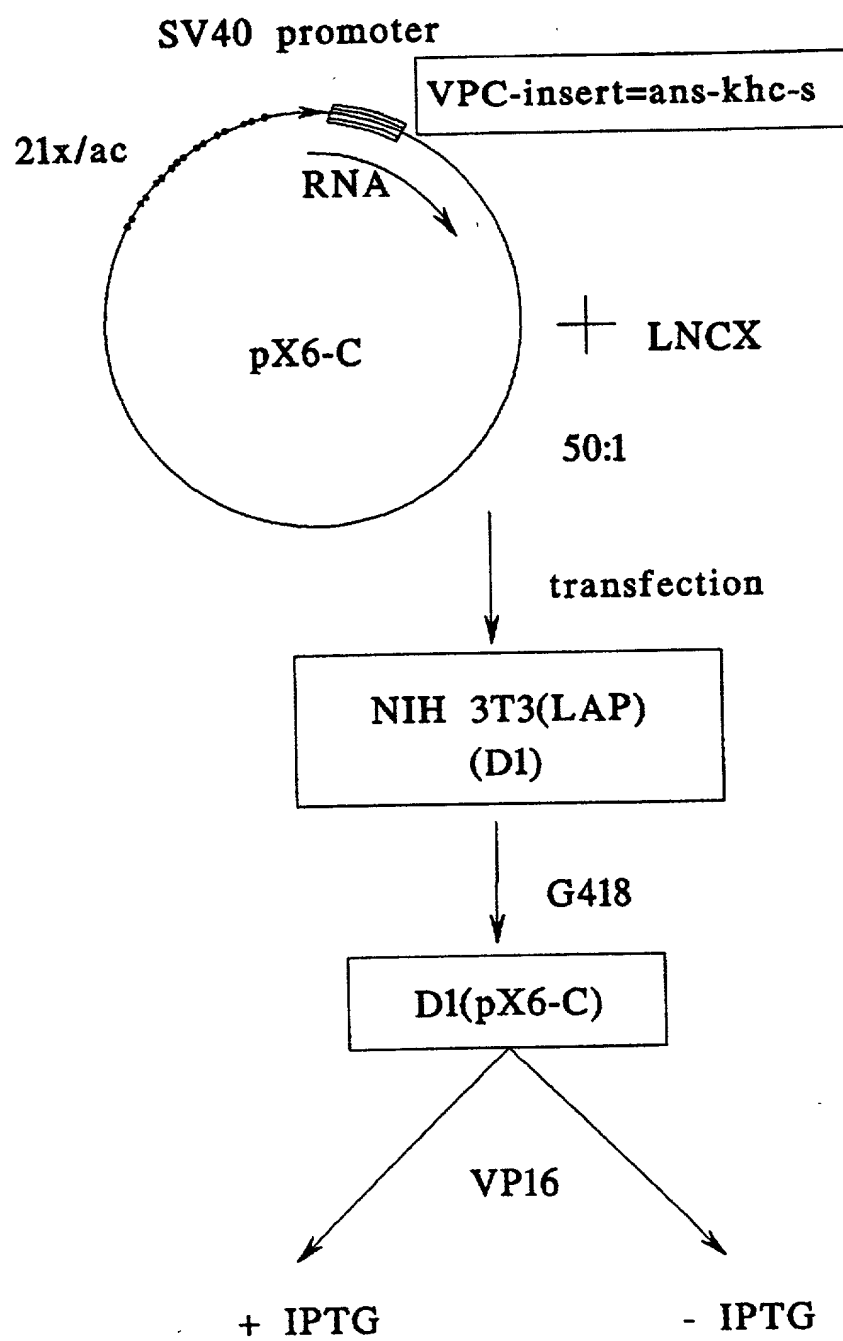


FIG. 9

CTTGATCCCT	TCTGGTTGAT	GCCAGAAGCT	CTTCCTGATC	CAGCATTGT	ATCTTCAATT	60
TCTCTACCAA	TTGGCTTTGT	TGGTTAATCT	CTTCATCCTT	GTCATCAAGT	TGTTTATACA	120
ATTAGCAAG	TTCTTCTTCA	CACTTTCTTC	TTTCAGCATC	GGTAAACTA	CCAGCCATTC	180
CGACTGCAGC	AGCTGGTTTA	TCACTGGTAA	TAGCAATATC	TTTATCCGCT	GTGAAGGCTT	240
CCAAATTAGC	TTTCTCTTTG	TCAAACGTCT	CATCAATAGG	CACGTCTCTC	CCGTACGCC	300
AACGGTTTAG	CTCGTTTTC	AGCCACT				327

FIG. 10

CCGACCGGGA	GCGGGAGAAG	GAGCGGGAGC	GGGAGCAGCG	GGAGAAGGAG	CGGAGAAGG	60
AGCTGGAGCG	CGACGGGAGA	AGGAACGGGA	GCGCGAGCTG	GAGCGGCAGC	GGGAGCAGCG	120
GGCGAGGGAG	AAGGAGCTGC	TGGCTGCCAA	GGCCTTAGAG	CCCACCACCT	TCCTGCCCTGT	180
GGCCGAGCTG	CACGGACTCC	GAGGTCACAG	CACGGAGGAG	CGGCCCCAAGC	CCTCGGAGCA	240
GCTGACCCCA						250

FIG. 11

CTCAGAGGTG	ATCCTCTCGG	AGTCGAGCTC	AGGAGAAGGA	GTCCCCCTTCT	TTGAGACTTG	60
GATGCAGACC	TGCATGTCCG	AGGAGGGCAA	GATTTTGAAC	CCTGACCATC	CCTGCTTCCG	120
CCCTGACTCC	ACCGAAGTCG	AGTCCTTGGT	GGCCCTGCTC	AACAACTCTT	CAGAGATGAA	180
GCTAGTACAG	ATGAAGTAGC	ACGAGGCC				208

FIG. 12A

CGACAAACAT	CATCTGGGAA	GACCCACACG	ATGGAGGTA	AAC TTCATGA	TCCAGAAGGC	60
ATGGGAATTA	TTCCAAGAAT	AGTCAAGAT	ATTTTAAAT	ATATTACTC	CATGGATGAA	120
AATTGGAAT	TTCATATTAA	GGTTTCATAT	TTTGAAATAT	ATTGGATAA	GATAAGGGAC	180
TTGTTAGATG	TTTCAAAGAC	TAACCTTTCA	GTCCATGAAG	ACAAAACCG	TGTTCCCTAT	240
GTAAAGGGT	GCACAGAACG	TTTCGTGTGT	AGTCCAGATG	AAGTCATGA	TACCATAGAT	300
GAAGGGAAT	CCAACAGAGA	TGTCGCAGTT	ACAAATATGA	ATGAACATAG	CTCTAGGAGC	360
CACAGCATAT	TTCTTATTAA	TGTAAAACAA	GAGAATACAC	AAACGGAAACA	GAAACTCAGT	420
GGAAAGCTTT	ATCTGGTTGA	TTTAGCTGGC	AGTGAGAAAG	TTAGTAAGAC	TGGGGCTGAA	480
GGTGCTGTGC	TGGATGAAGC	TAAGAACATC	AAGAAGTCAC	TTTCTGCACT	TGGAATATGTC	540
ATTTCTGCTT	TGGCAGAGGG	CAGTACCTAT	GTTCCTTATC	GAGATAGTAA	AATGACCAGA	600
ATTCTTCAAG	ATTCATTAGG	TGCAACTGT	AGGACCACTA	TTGTCATATG	CTGCTCTCCA	660
TCATCATACA	ATGAGTCTGA	GACAAAGTCA	ACACTCCTCT	TTGGTCAAAG	GGCCAAAACA	720
ATTAAGAACA	CAGTCTGTGT	CAATGTAGAG	TTAACTGCAG	AGCAGTGGAA	AAAGAAGTAT	780

FIG. 12B

GAAAAAGAAA	AGGAAAAAAA	TAAGACTCTA	CGGAACACTA	TTCAGTGGCT	GGAAAAACGAG	840
CTAAACCGTT	GGCGTAACGG	GGAGACAGTG	CCTATTGATG	AGCAGTTTGA	CAAAGAGAAA	900
GCTAATTGG	AAGCCTTCAC	AGCGGATAAA	GATACTGCTA	TTACCAGTGA	TAAACCAGCT	960
GCTGCAGTCG	GAATGGCTGG	TAGTTTACC	GATGCTGAAA	GAAGAAAAGTG	TGAAGAAGAA	1020
CTTGCTAAAT	TGTATAAACA	GCTTGATGAC	AAGGATGAAG	AGATTAACCA	ACAAAGCCAA	1080
TTGGTAGAGA	AATTGAAGAC	ACAAATGCTG	GATCAGGAAG	AGCTTCTGGC	ATCAACCAGA	1140
AGGGATCAAG	ATAATATGCA	AGCTGAACTG	AATCGCCTCC	AAGCAGAAAA	TGATGCTTCT	1200
AAAGAAGAAG	TCAAAGAAGT	TTTACAGGCC	TTAGAGGAAC	TGGCTGTAA	TTATGATCAG	1260
AAGTCTCAGG	AAGTTGAAGA	CAAAACAAAG	GAATATGAAT	TGCTTAGTGA	TGAATTGAAT	1320
CAAAAATCTG	CAACTTTAGC	AAGTATTGAT	GCTGAGCTTC	AGAAAGCTGAA	GGAAATGACC	1380
AACCACCAGA	AGAAACGAGC	AGCTGAAATG	ATGGCATCAT	TATTAAAAGA	CCTTGCAGAA	1440
ATAGGAATTG	CTGTGGGGAA	TAACGATGTG	AAGCAACCAG	AAGGAACTGG	TATGATAGAT	1500
GAAGAGTTTA	CTGTTGCAAG	ACTCTACATT	AGCAAAAATGA	AATCAGAAGT	AAAGACCATG	1560

FIG. 12C

GTGAAACGCT GCAAACAGCT AGAAAGCAGC CAGACTGAGA GCAACAAAAA AATGGAAGAA	1620
AATGAGAAAG AGTTAGCAGC ATGCCAGCTT CGGATCTCCC AACATGAAGC CAAAATCAAG	1680
TCACTGACTG AGTACCTTCA GAATGTAGAA CAAAAGAAGA GGCAGCTGGA GGAATCTGTT	1740
GATTCCCTTG GTGAGGAGCT AGTCCAACTC CGAGCACAAAG AGAAAGTCCA TGAAATGGAA	1800
AAAGAGCACT TGAACAAGGT TCAGACTGCA AATGAAGTCA AGCAAGCTGT TGAGCAGCAG	1860
ATCCAGAGTC ACAGAGAAAC CCACCAAAAA CAAATCAGTA GCTTGGGAGA TGAAGTTGAG	1920
GCAAGGAAA AGCTAATCAC TGACCTCCAA GACCAAAACC AGAAGATGGT GTTGGAGCAG	1980
GAACGGCTAA GGGTGGAGCA TGAGAGGCTG AAGGCTACAG ACCAAGAGAA GAGCAGGAAG	2040
CTGCATGAGC TCACGGTTAT GCAAGACAGA CGAGAACAAG CAAGACAAGA CTTGAAGGGT	2100
TTGGAGGAGA CCGTGGCAAA AGAACTTCAG ACTTTACACA ACCTGCGTAA GCTCTTTGTT	2160
CAGGACTTGG CTACCAGGGT GAAAAAGAGG CCGAGGTCGA CTCTGACGAC ACTGGCGGCA	2200
GTGCTGCACA GAAGCAGAAA ATCTCCTTCC TTGAAAACAA CCTTGAACAG CTCACCAAAG	2280
TGCACAAGCA GTTGGTACGT GATAATGCAG ATCTTCGCTG TGAGCTTCTT AAGTTAGAGA	2340
AACGGCTTAG AGCTACTGCA GAAAGAGTGA AAGCTTTGGA GTCAGCCCCG	2389

FIG. 13A

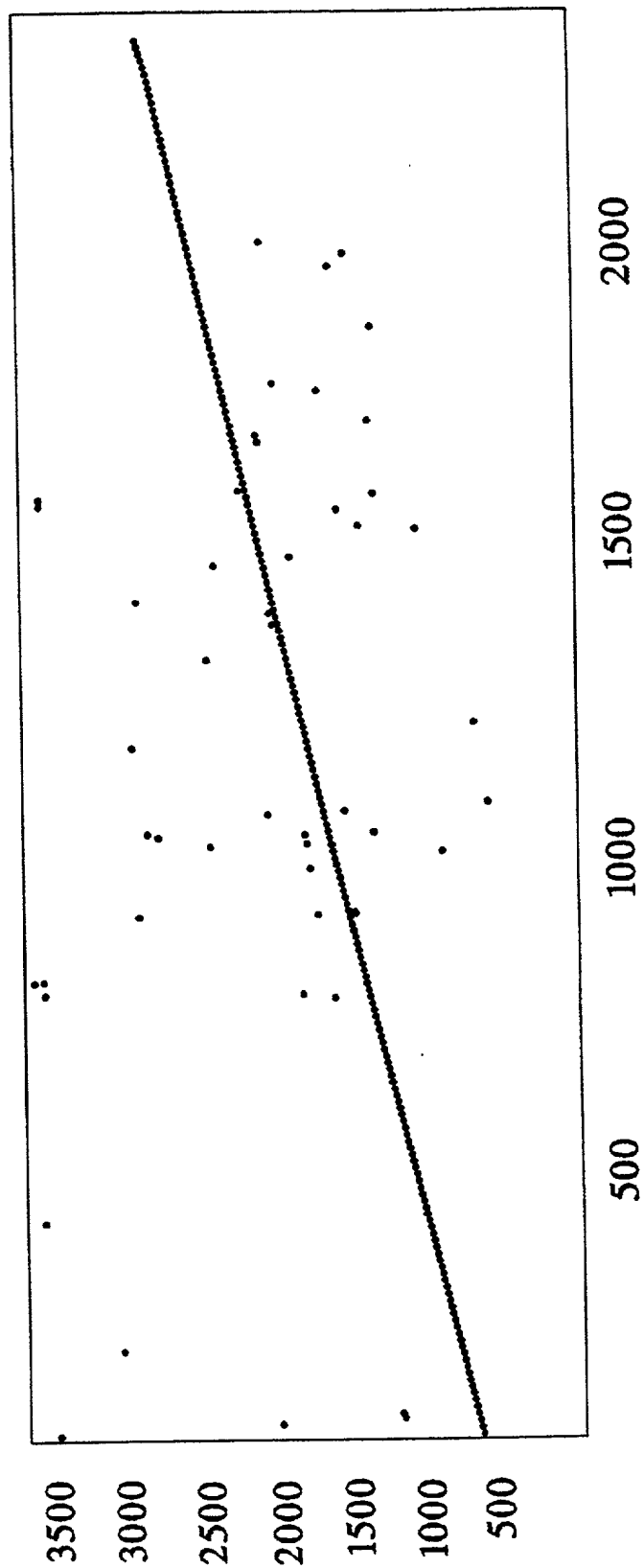


FIG. 13B

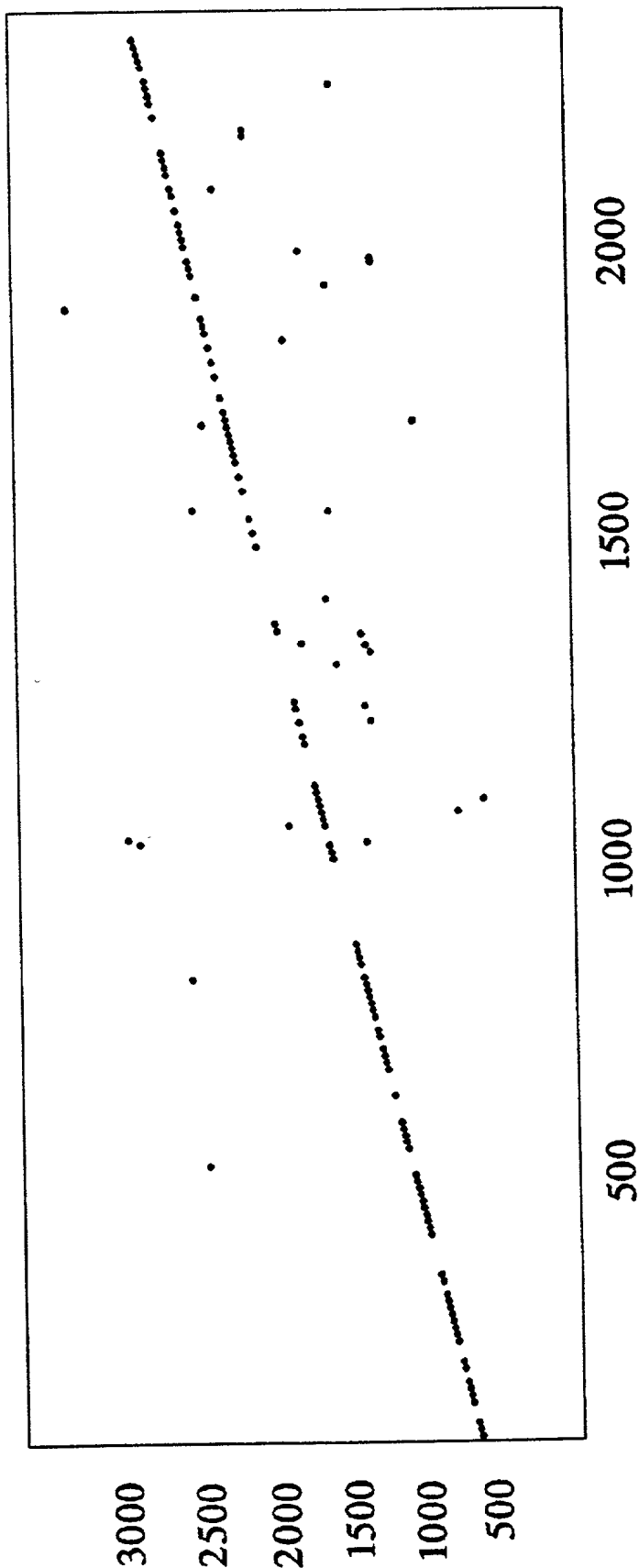


FIG. 13C

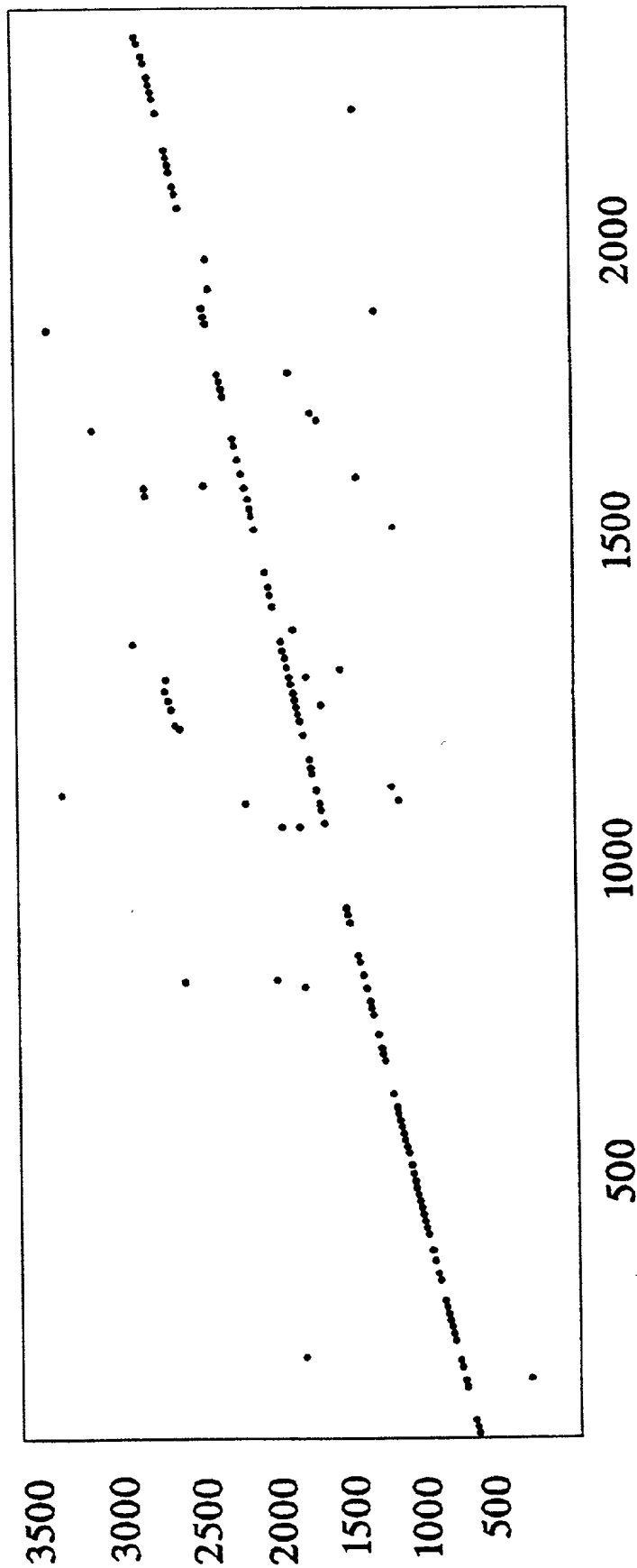


FIG. 13D

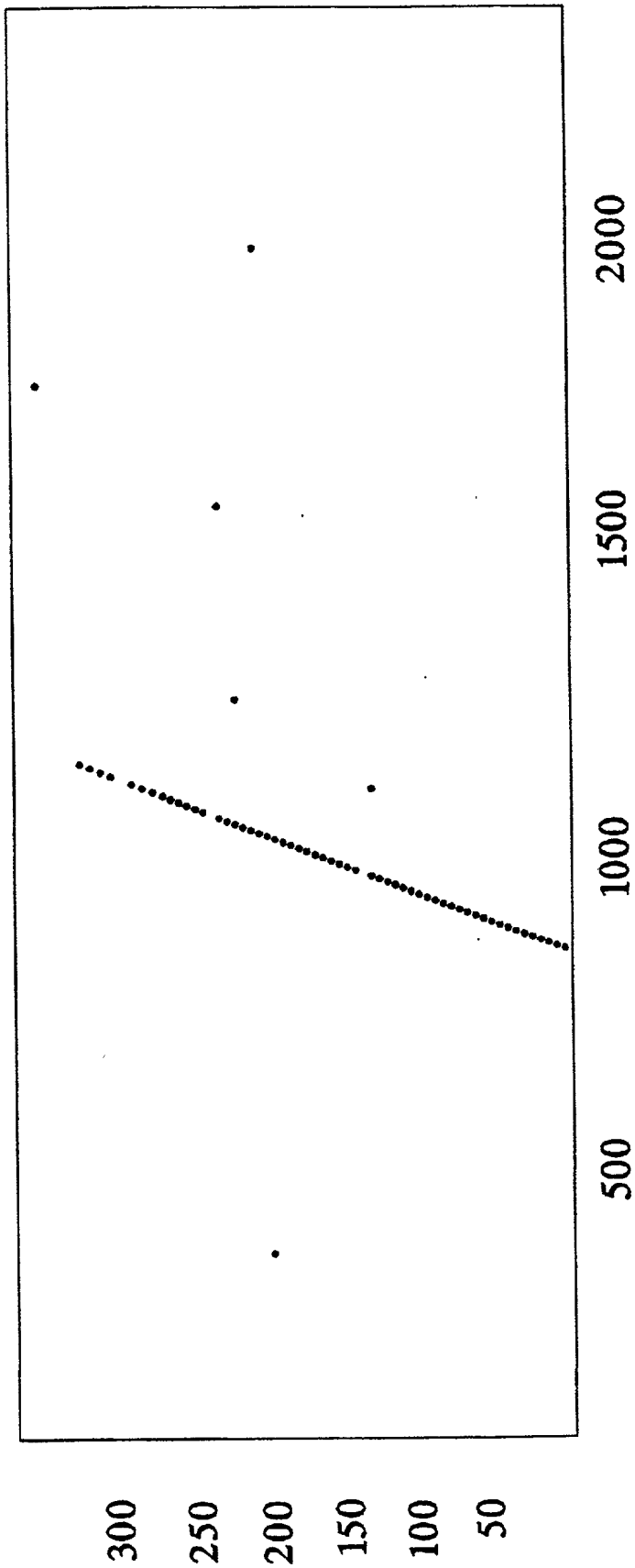


FIG. 14A

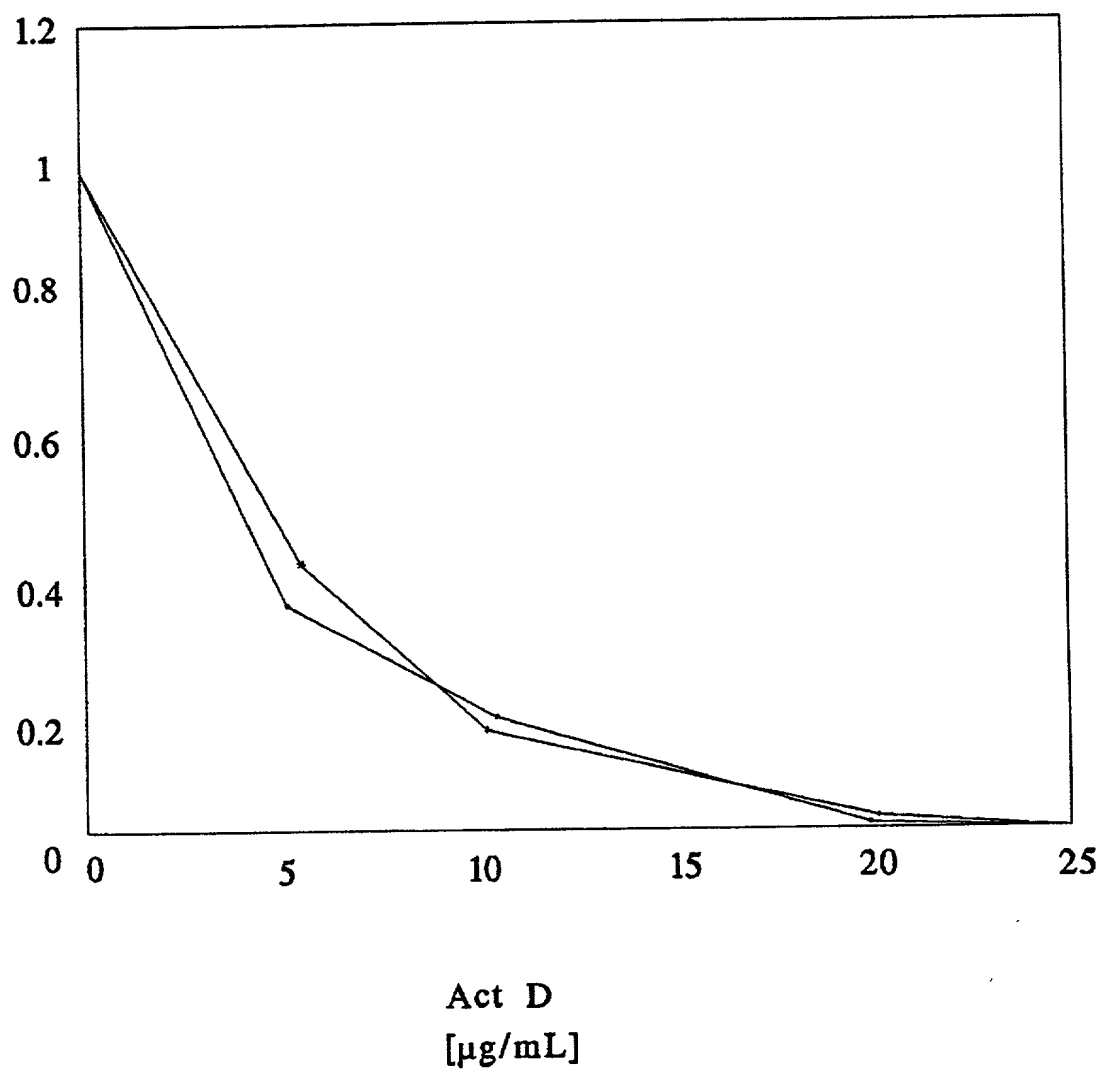


FIG. 14B

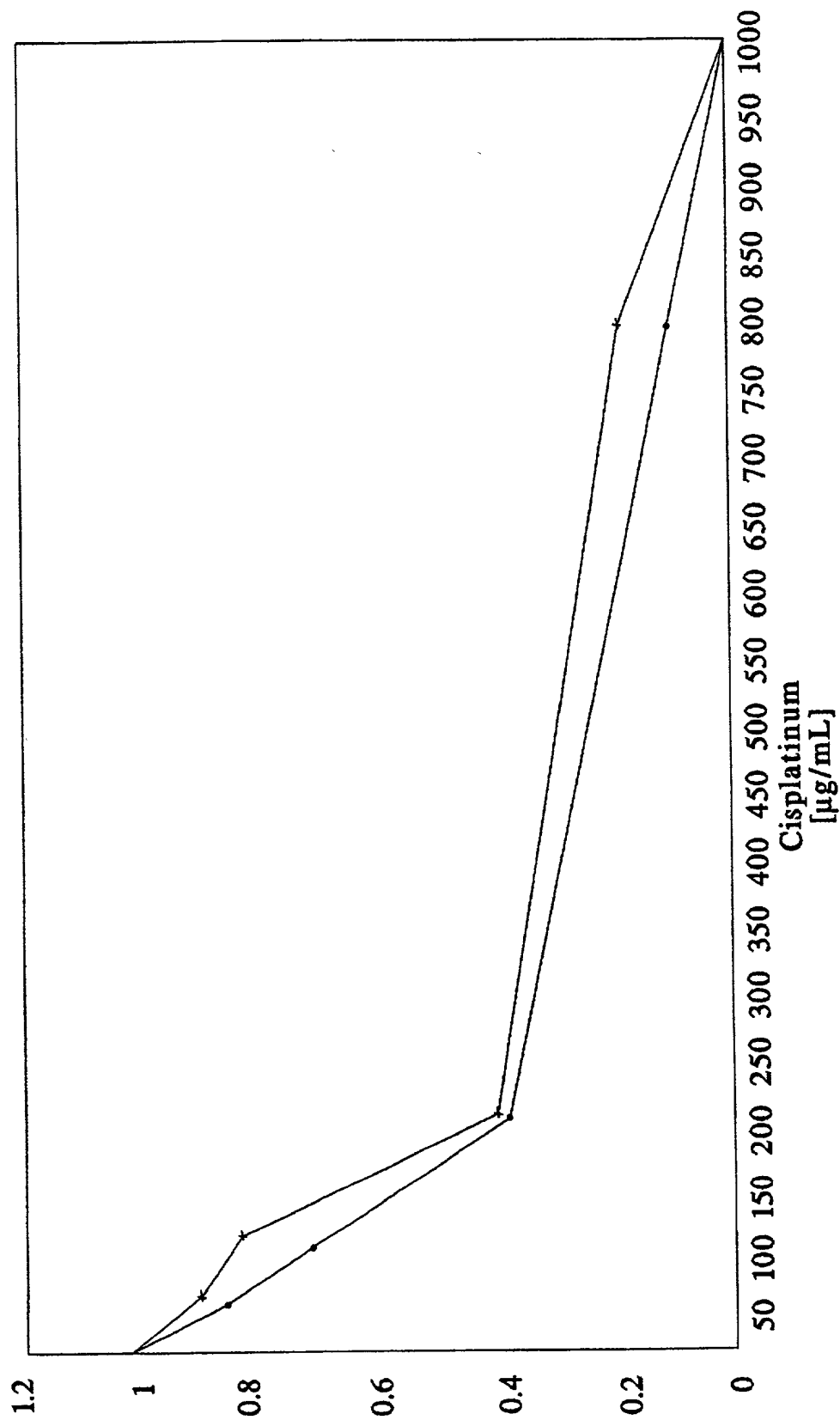


FIG. 14C

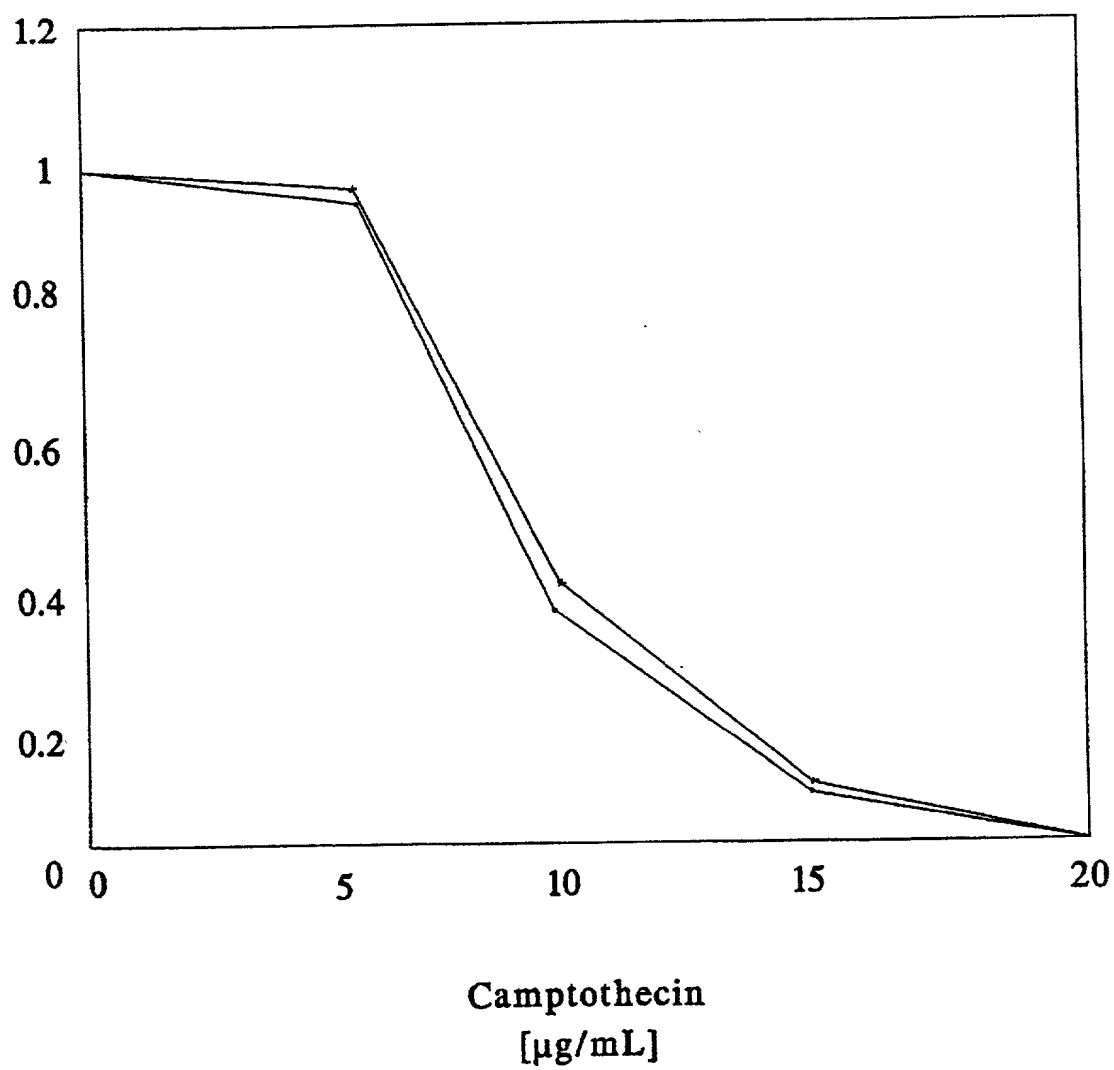


FIG. 14D

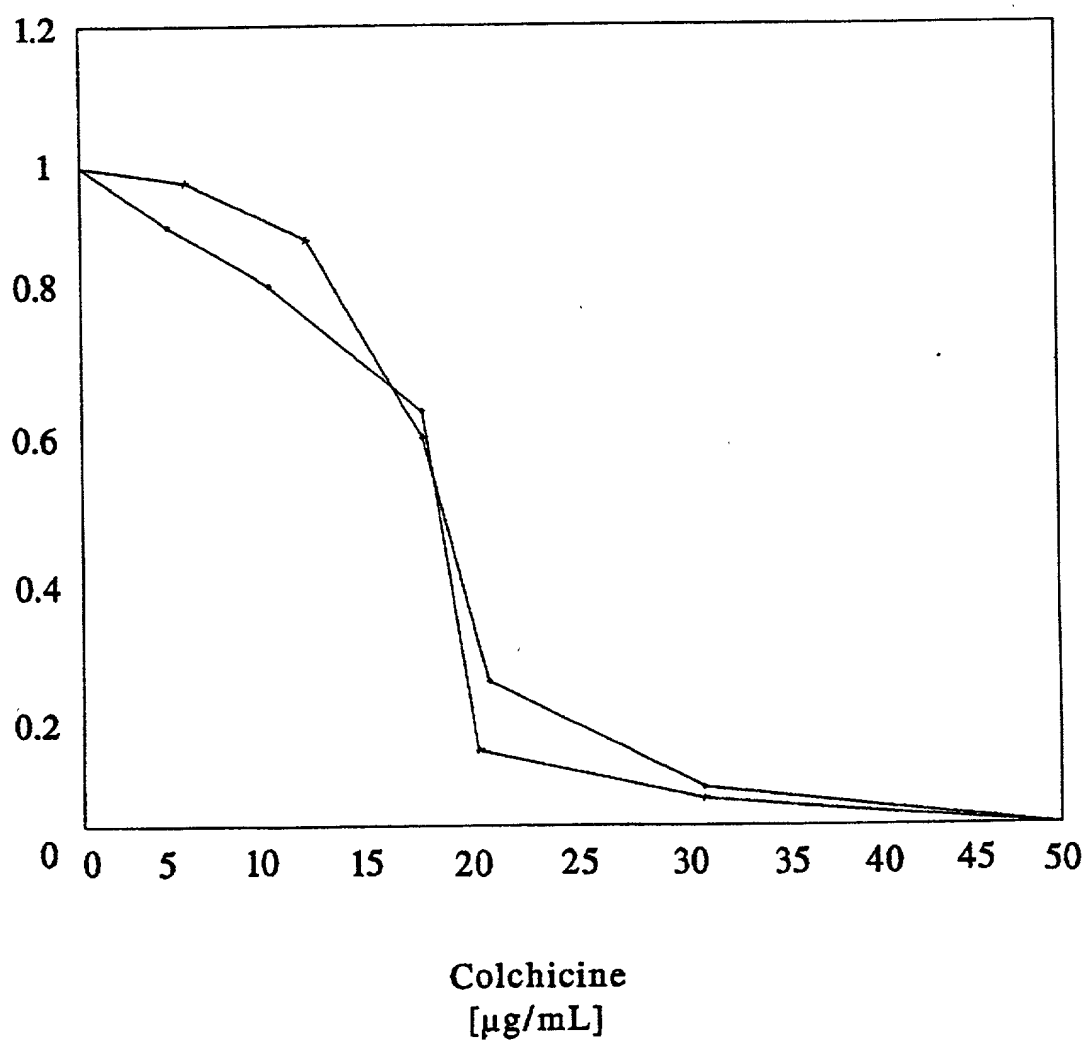


FIG. 14E

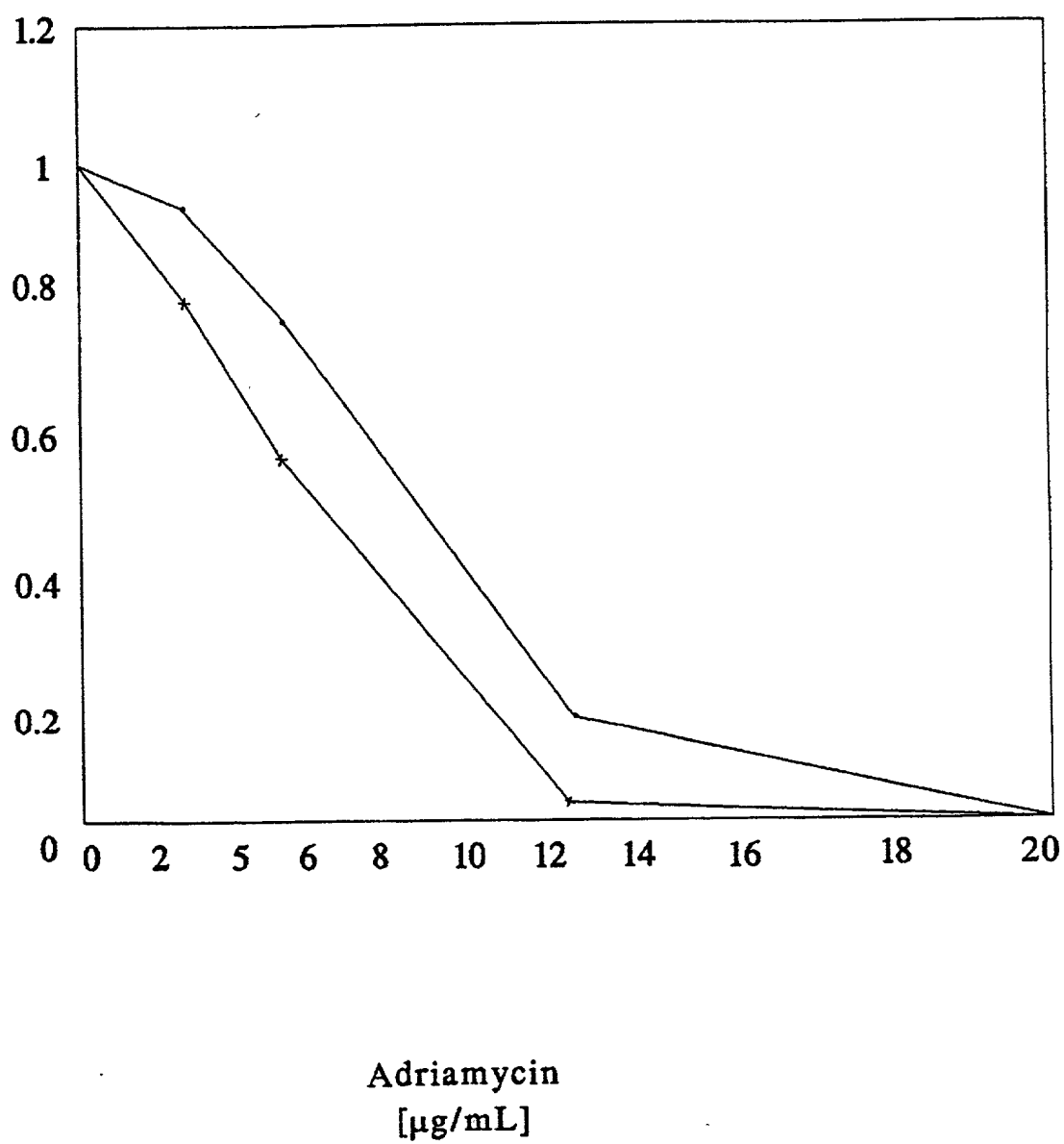


FIG. 14F

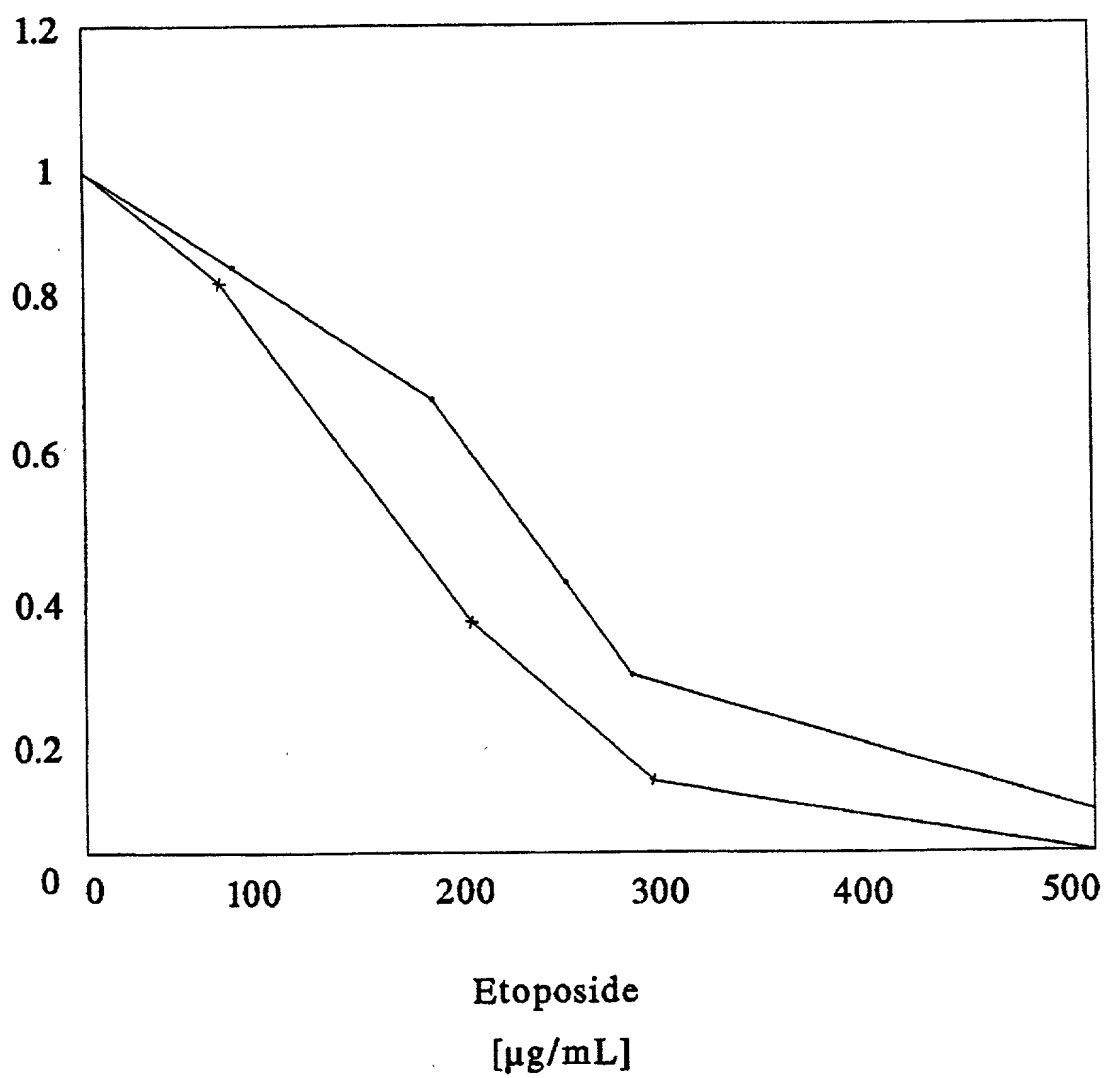
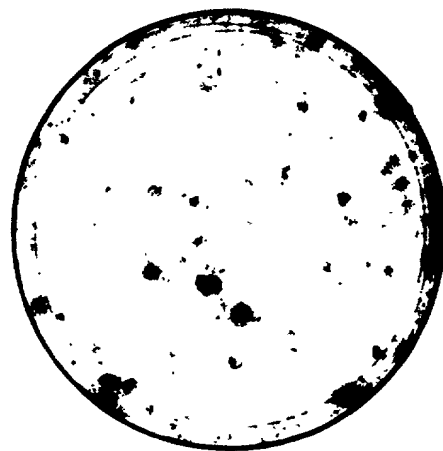
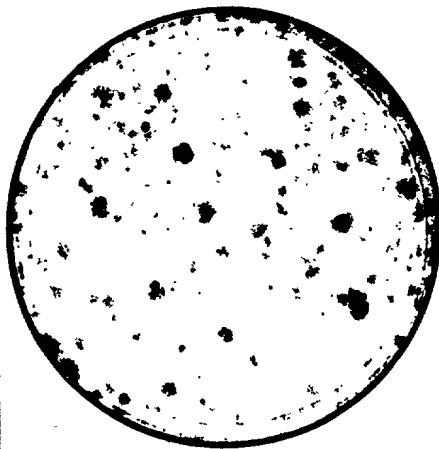


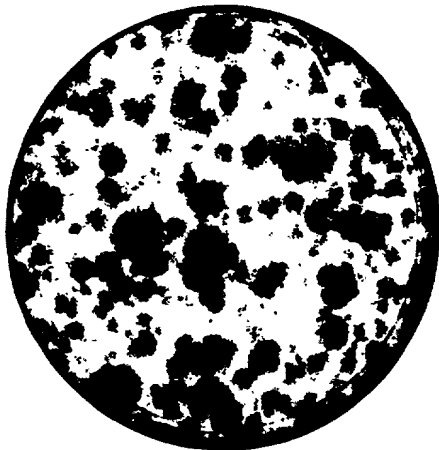
Fig 15



no infection



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Figure 16

